ABSTRACT

A method and apparatus for time varying filtering of an audio signal without introducing audible artifacts is presented. The method comprises filtering a segment of the signal using a given filter, and then disengaging the filter in a sequence of graduated steps at the end of the segment. To then filter the next segment of the input signal with a different filter, the new filter is gradually engaged in a sequence of steps at the beginning of such next segment of the input signal. The remainder of the signal in the segment is filtered with the fully engaged filter, until the end of the segment, where it is gradually disengaged, as was the prior filter. The method of switching filters by gradually disengaging a given filter at the end of signal segments and gradually engaging the next filter at the beginning of the next segment is repeated until the entire input signal has been processed. Such method obviates audible artifacts in the filtered signal, while enabling the time varying filtering of an input signal.

In a preferred embodiment, once disengaged, a filter is removed so as to decrease processor usage.